

AMENDMENTS TO THE CLAIMS

Please amend the Claims as follows:

1. **(Currently Amended)** A computer-based method for versioning in a storage architecture that manages node ranges, said method comprising:
 - a. receiving a node modification request from a database system;
 - b. copying, to a storage, a node range to which said node modification request is to be made;
 - c. labeling said copied node range with an identifier; andwherein said labeled node range is locatable via said identifier and a hash on said node range.
2. **(Currently Amended)** A computer-based method as per claim 1, wherein said identifier is any of the following: a timestamp or a LSN.
3. **(Currently Amended)** A computer-based method as per claim 1, wherein said storage is a transient storage.
4. **(Currently Amended)** A computer-based method as per claim 1, wherein said node modification request is any of the following: a node insertion request, a node update request, or a node deletion request.
5. **(Currently Amended)** A computer-based method as per claim 1, wherein said method is implemented across networks a network.

6. **(Currently Amended)** A computer-based method as per claim 5, wherein said network is any of the following: a local area network, a wide area network, or the Internet.

7. **(Currently Amended)** A computer-based method as per claim 1, wherein said node ranges are associated with hierarchical node data that is derived from any of: a structured document, a computer network, or a directory file system.

8. **(Currently Amended)** A computer-based method as per claim 7, wherein said structured document is an XML document.

9. **(Currently Amended)** A computer-based method for versioning in a storage architecture that manages node ranges via a node id range index, said each node assigned a node id value and a set of nodes forming a node range, each entry in said node id range index pointing to a node range and its range identifier, RID, said method comprising:

- a. receiving a node modification request for a range;
- b. shadowing nodes in said range to a Version Hash Table based on RID;
- c. assigning a time identifier to copies of said range;

wherein a node in said shadowed range is locatable via said time identifier and RIDs.

10. **(Currently Amended)** A computer-based method as per claim 9, wherein said time identifier is any of the following: timestamp or LSN.

11. **(Currently Amended)** A computer-based method as per claim 9, wherein new readers, after a modification, access current nodes through a new RID.

12. (Currently Amended) A computer-based method as per claim 9, wherein previous readers access old nodes via the same RID and hashing the same RID to locate the shadowed copy in said Version Hash Table.

13. (Currently Amended) A computer-based method as per claim 9, wherein when modifications cause nodes in a range to be moved to a new RID, previous readers are redirected from the new RID to ~~the~~an old RID via a Redirection Hash Table.

14. (Currently Amended) A computer-based method as per claim 9, wherein when modifications cause nodes in a range to be moved to a new RID, previous readers are redirected from the new RID to ~~the~~an old RID via an index that describes where old versions are in said Version Hash Table.

15. (Currently Amended) A computer-based method as per claim 9, wherein said shadowed nodes are copied to a transient storage.

16. (Currently Amended) A computer-based method as per claim 9, wherein said method is implemented across ~~networks~~a network.

17. (Currently Amended) A computer-based method as per claim 16, wherein said network is any of the following: a local area network, a wide area network, or the Internet.

18. (Currently Amended) A computer-based method as per claim 9, wherein, for range deletions, the range being deleted is moved to reserved RID RIDFF.

19. (Currently Amended) A computer-based method as per claim 18, wherein a reader hashes said a Redirection Hash Table on RIDFF to find ~~the~~a correct Version Hash Table entry.

20. (Currently Amended) A computer-based method as per claim 9, wherein said node ranges are associated with hierarchical node data that is derived from any of: a structured document, a computer network, or a directory file system.

21. (Currently Amended) A computer-based method as per claim 20, wherein said structured document is an XML document.

22. (Currently Amended) A computer-based method as per claim 9, wherein said node modification request is any of the following: a node insertion request, a node update request, or a node deletion request.

23. (Cancelled)

24. (Original) An article of manufacture comprising computer readable program code implementing a method for transient versioning in a storage architecture that manages node ranges via a node id range index, said each node assigned a node id value and a set of nodes forming a node range, each entry in said node id range index pointing to a node range and its range identifier, RID, said method comprising:

- a. computer readable program code identifying a node modification request for a range;
- b. computer readable program code shadowing nodes in said range to a Version Hash Table based on RID;
- c. computer readable program code assigning a time identifier to copies of said range;

wherein a node in said shadowed range is locatable via said time identifier and RIDs.

25. (Currently Amended) An article of manufacture comprising computer readable program code implementing a method for versioning in a storage architecture that manages node ranges, said method comprising:

- a. computer readable program code identifying a request for node modification from a database system;
- b. computer readable program code copying, to a storage, a node range to which said node modification request is to be made;
- c. computer readable program code labeling said copied node range with an identifier; and

wherein said labeled node range is locatable via said identifier and a hash on said node range.